

A PRIVATE AND SECURE OPTICAL COMMUNICATION SYSTEM USING AN OPTICAL TAPPED DELAY LINE

Abstract

A method and apparatus for secure transmission of an information-containing optical signal. An optical signal is divided into a first plurality of sub-bands. Each of the sub-bands is modified to encrypt the information contained in the optical signal. The modified sub-bands are combined into a combined optical signal. The combined optical signal is divided into a second plurality of sub-bands. Each of the second plurality of sub-bands is modified to decrypt the previously encrypted information contained in the optical signal.